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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/314,637	05/19/1999	MAZIN G. RAHIM	ATT.0030000	5478

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LAW OFFICE OF DUANE S. KOBAYASHI  
1325 MURRAY DOWNS WAY  
RESTON, VA 20194

EXAMINER

ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 08/01/2003

15

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/314,637

Applicant(s)

RAHIM ET AL.

Examiner

Angela A. Armstrong

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2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 02, 2003 has been entered.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alleva et al (US Patent No. 5,970,449) in view of Sukkar (US Patent No. 5,613,037).

Regarding claims 17, 19, 20, and 22 Alleva discloses and/or suggests

a speech recognition system at col. 3, line 18 to col. 4, line 6.

receiving a speech signal at col. 3, line 18 to col. 4, line 6;

performing speech recognition process on the received speech signal to produce speech recognition results, wherein a numeric language includes a subset of a vocabulary, the subset of the vocabulary including words that identify digits in number strings and words that enable the interpretation and understanding of number strings at col. 3, line 18 to col. 4, line 6; Abstract;

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Figure 1, element 32; Figure 9, element 132; col. 1, lines 56-62; col. 6, lines 14-17 and 40-42; col. 5, lines 62-65 and col. 6, lines 43-45;

generating a sequence of digits using said speech recognition results, said generating being based on a set of rules at Figure 9, elements 122, 124, 126, 128, and 130.

Alleva fails to explicitly teach a system comprising acoustic models utilized by the speech recognition processor. However, implementation of acoustic models in a speech recognition system was well known in the art.

In a similar field of endeavor, Sukkar discloses a speech recognition system comprising acoustic model, utilized by the speech recognition processor (Figure 3, element 308). Additionally, Sukkar teaches a digit model for digit recognition and a second model, a filler model, a generalized HMM model of spoken words that do not contain digits (col. 3, line 19 to col. 4, line 22).

Therefore, it would have been obvious to one of ordinary skill at the time of the invention to implement the acoustic model teachings of Sukkar in the recognition system of Alleva, for the purpose of accurately producing vector representations of the received input speech.

3. Regarding claim 18, Alleva teaches performing is implemented by a speech recognition processor at Figure 1, element 32; col. 3, line 18 to col. 4, line 6.

4. Regarding claim 21, Alleva teaches numeric language includes digits, natural numbers, alphabets, re-starts, and city/country name classes Figure 9, elements 122 and 124.

5. Regarding claim 23, Alleva teaches a numeric recognition processor at Figure 9, elements 122, 124, and 126,

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6. Regarding claims 24-27, Alleva teaches a set of rules includes a naturals rule, a restarts rule, a city/country rule, and a alphabets rule at Figure 9, element 126 and col. 6, line 3 to col. 7, line 9.

7. Regarding claims 13-16 and 28-36, claims 13-16 and 28-36 are similar in scope and content to claims 17-27, and are therefore rejected under similar rationale.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

Angela A. Armstrong  
Examiner  
Art Unit 2654

AAA  
July 27, 2003

  
Richemond Dorvil  
Primary Examiner